

## UKRAINIAN ECONOMICS

157

tion is very clear, buckwheat growing in Zone 1<sup>2</sup> and 241  
millet in Zone 2.7

The great development of agriculture has created a 392  
growing demand for agricultural machinery, which  
brought about the appearance and the rapid develop-  
ment of this branch of industry, concentrated to-day  
especially at Kherson, at Zaporojie, and at Kharkov.

Parallel to this a very important industry of food 241  
products has developed. These are the great and highly  
perfected mills, the sugar refineries, the distilleries, the  
breweries, and the tobacco factories which cover the  
whole territory of the Ukraine. As auxiliary products  
of agriculture, apart from vegetables of all kinds, known  
in Europe, the production of which is difficult to  
estimate, one can mention the melons, water-melons,  
cucumbers, and tomatoes, to the cultivation of which  
important tracts have been given.

The production of fruit and grapes has not experienced 245  
so great a development. The surface given to fruit  
trees (cherries, apples, apricots, and pears) reaches about  
250,000 hectares. The most important horticultural  
centres are to be found in the region of Ouman, on the  
banks of the Dniester, at the mouth of the Dnieper,  
and equally in the surroundings of Odessa, which are  
famous for their peach trees. The town of Ouman has  
a horticultural school and an experimental station which  
had already long before the Great War a great agri-  
cultural reputation throughout Russia.

The marketable harvest of fruit reached 80,000 tons  
before the Great War.

The surplus production of fruits and especially of  
vegetables (tomatoes) have brought about the rise and  
the rapid development of a food tinning industry which  
seemed to offer great possibilities in the future.

As to the vineyards (about 60,000 hectares), they are  
2 [see category 116, pp. 139-140 --- Analyst]

245 found in the extreme south of the Ukraine, on the banks of the Dniester and the Boug (Voznessensk), in the region of Odessa, at the mouth of the Dnieper, and in the region of the rapids near Zaporojie.

Despite the small importance of the vineyards in the agricultural economy of the Ukraine, a great effort has been made by Russia in this sphere. An experimental station for vines has been established near Odessa which has a laboratory for the analysis of the harvests. Highly qualified specialists have made researches there on the growth of native and French varieties for the creation of species adapted to the soil and to the climatic conditions of the Ukrainian vine region.

246 The cultivation of fodder, such as clover and others, are relatively little known in the Ukraine. The lands which are given up to them are almost entirely in the western part of Zone 1, which is over-populated and provided with natural pastures. Their surface does not exceed 1,000,000 hectares. In the Ukrainian Steppe only the natural pastures are of importance. (It is to be hoped that the culture of fodder will develop in the Steppe as it is necessary for the rational enrichment of the land.)

241 Before going on to the question of forestry and to breeding, let us say a few words about the state of agriculture in the lately Polish part of the Ukraine.

Being a natural continuation of Zone 1, with a poorer soil, this country produces a large proportion of rye, which occupies more than a third of the sown surface.

The other crops are barley, wheat, oats, and potatoes, all of which are used by the native population. The cultivation of sugar-beet is very limited.

246 On the other hand the cultivation of fodder is more extensive in Polish Galicia than in the Soviet part of the 2 [See category 116, pp. 139-140 --- Analyst]

privately-owned lands. The failure or success of the <sup>243</sup>Ukraine wheat harvest has its effect upon the corn <sup>439</sup>exchanges of the whole world, and its shipment from the Black Sea is the occasion of much anxiety and speculation every season.

*Barley* is largely grown and exported, being principally raised on privately-owned land. *Maize* comes next in value; the greater part of the crop is consumed locally, but a moderate quantity is exported in good years. The *oat* crop is valuable, and a proportion remains for export after the supply of local needs. *Millet* and *buckwheat* are grown for local use.

Of the non-cereal crops, *potatoes* take the first <sup>244</sup>place, exceeding all others by a large margin. They <sup>437</sup>are used not only for food and the manufacture of potato flour, but for the distillation of spirits, a flourishing industry in many districts. Small crops of *peas*, *beans*, and *lentils* are also grown.

The *sugar-beet* is raised in great quantities, especially in the governments which have not the black soil. Kiev produces most, Podolia and Kharkov come next; the remaining Governments have only small crops, and Taurida and Yekaterinoslav none. There is usually a large surplus of refined sugar for export, in addition to a valuable internal trade in sugar and manufactures thereof; the by-products of cattle food and spirit distilled from molasses increase the value of this crop.

*Tobacco* used to be widely cultivated except in the <sup>247</sup>black-soil zone, but its cultivation is steadily decreasing everywhere. It still remains important in the Governments of Poltava and Chernigov. Only the coarsest qualities are raised, the leaf being known as *makhorka* and used solely by peasants and labourers.

Volhynia grows a large quantity of *hops*, about half the total yield of all Russia. The product is mostly sold locally, but occasionally a surplus is exported to the Warsaw market.

The *grape vine* is cultivated in Podolia, Kherson, <sup>245</sup>and Yekaterinoslav. The wine produced is of inferior quality, and has only a local market.

Of the crops producing vegetable oils, *linseed* and <sup>000</sup>

219 Of the crops producing vegetable oils, *linseed* and *sunflower* are the principal. A great deal of sunflower seed is eaten raw by peasants and labourers all over Russia. These two crops are decreasing.

244 *Fruit and vegetables.*—The orchard districts are in the Governments of Podolia, Chernigov, Poltava, and Kiev.  
459 Apples, pears, plums, cherries, mulberries, and apricots grow freely, and the surplus goes to northern Russia, great quantities being preserved. Vegetables succeed well in the alluvial soils near the rivers. They are mostly grown by summer immigrants from Bulgaria (cf. p. 72), who use a primitive system of irrigation. The surplus supply all goes to northern Russia.

231 The live-stock of the Ukraine is very numerous, but of late years has tended to decrease.

*Horses* are much in demand for agricultural work, especially as the use of oxen as draught animals is being gradually abandoned. There is also a strong demand for horses in the coal and iron region for haulage. As a result the stock of horses has considerably increased in six out of the nine Governments, Volhynia, Podolia, and Chernigov alone showing decreases.

*Cattle* have decreased in numbers in five Governments and increased in four, but the total shows a serious falling off.

236 *Sheep* are divided roughly into two classes, fine-woolled and coarse-woolled, the former producing wool known as 'Spanish', the latter being killed for their skins. There is a general decrease of stock in every province of the Ukraine. The great increase of population and the demand for land, with rising rents, make sheep-farming not sufficiently profitable under present agricultural conditions.

231 The stock of *pigs* is, on the whole, maintained, and even shows a good increase in some Governments.

The *goat* was formerly of importance, and there was a considerable stock in the country, but it has dwindled latterly at a very rapid rate.

235 *Poultry* are kept in considerable numbers, but poultry-farming on modern methods is very rare and of small economic importance.

000 *Apiculture* is common in the northern Ukraine, and